XXX.—Remarks on the Flight and Distribution of the Albatrosses of the North Pacific Ocean. By Capt. Gerald E. H. Barrett-Hamilton, F.Z.S.

I have been much interested in reading Captain Hutton's paper on Albatrosses in 'The Ibis' for January (pp. 81 to 88), inasmuch as I have had many opportunities of observing the two species (Diomedea nigripes and D. albatrus) which frequent the North Pacific Ocean. The following notes may therefore be considered worth printing as a supplement to that writer's remarks.

Captain Hutton is much to be congratulated upon the success of his photographs, a success which none can more fully appreciate than those who, like myself, have wasted plate after plate in the attempt to obtain a picture of the flight of an Albatross.

The Black-footed Albatross, D. nigripes, called by the sailors the "Gooney" was a constant feature of a voyage which I made from San Francisco to Yokohama in June 1896, excepting only in latitudes south of 23° 29' N., where it was very scarce. Again, when running north from Hong Kong through the China Seas, in May 1897, I first observed the Gooney on the 22nd of the month near the Heachu Islands, where several were seen in about latitude 28° 41′ N., longitude 122° 11′ E. A white-rumped individual was noticed on the same day at a distance of about 41 hours run from Wohsung, and another on the 23rd as we neared the Japanese coast. Northwards the range of this bird ends far south of that of D. albatrus, and it can be but rarely that it occurs in Kamschatkan waters. On my way south from Petropavlosk to Hakodate, between the 31st of August and the 7th of September, 1897, the first individual—one with a white forchead—was not noticed until noon on the 3rd of September. We were then somewhere off Staten Island, one

^{*} The term "Gooney" is, like other sailors' names for birds, not necessarily of very accurate application. Moseley applied it to one of the large white Albatrosses (*D. exulans*). See 'Notes of a Naturalist,' &c. new ed. 1892, p. 148.

of the Kurils, our position according to dead reckoning being in latitude 45° 29′ N. and longitude 156° 16′ E. Later in the voyage I occasionally saw a few more, and was in all cases able to be quite certain of their identity. Again, on the eastern side of the ocean, I found this species at sea on most days during a voyage from Unalashka to Port Townshend in October and November 1896. The most northern point at which the bird appeared was when we were a little less than two days out from Unalashka, say, at nine knots, 400 miles from that port.

I was very much struck by these Gooneys, of which, during our course from San Francisco to Honolulu, there seemed to be an endless supply. It interested me to speculate whether each part of the ocean, as suggested by the Captain of the 'Peru,' had its own set of them, quartering that particular area alone for their daily food, so that our ship merely chanced to pass them on her way, or whether those which we saw followed us during the whole or a great part of our course.

Undoubtedly certain individuals followed in our wake for a distance of at least some miles, but it was not possible to identify them for any greater distance. On the whole I am inclined to adhere to the Captain's supposition, always admitting that individuals may occasionally wander from their own waters and follow a ship for some distance. Moseley, however, evidently thought differently, since he wrote * of the "various kinds of Petrels," which were "our constant companions in the Southern Ocean, following the ship day after day, dropping behind at night to roost on the water and tracking the ship up again in the early morning by the trail of débris left in its wake."

These Gooneys are dark and plainly coloured, but vary a good deal in appearance—some being entirely dusky, while others have either the forehead, vent, rump, or under tail-coverts white. They are very powerful fliers, and in this respect are only inferior to the larger Albatrosses, which are not met with in the North Pacific. They circle around a

ship with very little apparent exertion, occasionally alighting in order to examine something thrown overboard which strikes their fancy. Biscuit, however, they seem not to care for in the slightest, treating it with utter contempt. We often used to wonder how so many large birds managed to get their living at sea, for although they were constantly on the look out, it was very seldom that we saw them feed. To the flying fishes, which sometimes passed quite close to them, they paid no attention, and their whole sustenance seemed to be derived from the refuse thrown from the ship. When this contained anything suitable to their tastes they rapidly gathered together from all sides and alighted on the water, a squabbling gang of feathered scavengers. When swimming they sit very high in the water, and rise without difficulty, unless gorged. If intending to move only for a few yards they have a curious habit of literally walking on the surface, opening their wings, yet not flying, and preferring to make use of their large webbed feet to help themselves along. So, too, when about to alight on the ocean, their feet, suddenly thrown forward like those of a duck, are the first part of them to touch the water. Then, if not satisfied with the place which they have at first chosen, they will "walk" on further to a better place without taking the trouble to rise fully into the air.

In flight the legs are carried, like those of so many other sea-birds, stretched straight backwards under the tail. Behind this the feet project and give the bird the appearance of possessing two central tail-feathers longer than the remainder. The legs are frequently moved as if to act as a rudder or to lessen the bird's pace—for example, when descending.

When the wind is strong the flight of the Gooney must be very powerful, as, even in the light breezes which we experienced, the wings were but seldom flapped. With a north-easterly wind, the ship's course being north-west, the individuals seen kept constantly circling round and round behind her stern, first sailing up, then down the wind, but making a rather sharp turn at the north-east and south-west

ends of their course. Thus they avoided the necessity of crossing the wind for any distance. When they did cross the wind they seemed to find it necessary to flap their wings, usually at the points of their course where they turned to run up-wind. At the other end of their beat, when turning to run down-wind, wing-action was apparently unnecessary, since the wind itself supplied all the impetus required. When travelling against the wind the Gooneys seemed to ascend or descend by inclining the body unwards or downwards*. When descending, as the first officer of the ship pointed out to me, by slightly flexing their wings, they perform an act equivalent to shortening sail. When thus circling round in rear of the ship they often assumed an attitude with the wings pointing vertically upwards and downwards. They possessed a wonderful power of dodging the waves, shooting upwards at once when a bigger wave than usual rose in front of them; but they often passed so close over the surface that once or twice I saw the wing which happened to be undermost actually cutting the water for a few yards, yet without impeding the flight of the bird in the slightest.

The second species, Steller's Albatross (D. albatrus), is much less active. I first met with it in Hakodate Harbour on the 3rd of July, 1896. There one or two young birds in the dark plumage of immaturity † and with the bill flesh-coloured were generally to be seen, most of them apparently gorged with food. When in this state they seemed to have some difficulty in rising from the water and made free use of their legs in the attempt. When first seen, the dark immature birds of this species are rather likely to be confounded with adults of D. nigripes, but they are larger and darker and have the bill pink, and if carefully studied are found to fly in a style that is quite their own. They are most frequently to be seen sitting upon the water, and only rise and fly lazily away on the too near approach of a vessel.

^{*} On this point my notes, copied from my original journal, differ from those of Captain Hutton.

[†] Seebohm, Ibis, 1890, p. 105, says that the dark form is a dimorphism.

I never saw them following a ship like *D. nigripes*, and so have never had an opportunity of admiring their flight at close quarters. Their range seems to extend much further to the north than that of the other species, as I found them in Ukinsk Bay, Kamschatka, in latitude nearly 60 N., and adults were constantly in view on most days during a voyage from Petropavlosk to Hakodate between the 31st of August and the 6th of September. The Diomede Islands in Bering's Straits seem to have been named after this bird. On the other hand, I have observed it nearly as far south as the "Gooney"; thus I saw an adult on the 23rd of May, 1897, when nearing the Japanese coast on my way from Shaughai, and another on the previous day, at a distance of about $4\frac{1}{2}$ hours run from Wohsung, on the voyage to Japan.

On the eastern side of Bering's Sea this species is found in the neighbourhood of the Pribiloff Islands *, but I did not notice it on the voyage from Unalashka to Port Townshend in the end of October 1896.

XXXI.—On Birds new to Palestine. By Selah Merrill, Andover, Mass., U.S.A.†

Among the 2,000 birds which I collected while in Palestine, from 1882 to 1886, there are several which, so far as I know, are new to that country, and hence they should be added to the list of those already known. Dr. Tristram's catalogue (in the 'Fauna and Flora of Palestine') is the one followed, and to this the additions are supposed to be made.

(1) Brambling—Fringilla montifringilla.

* Mr. William Palmer's "The Avifauna of the Pribiloff Islands" in 'The Fur Seals and Fur Seal Islands of the North Pacific, Washington, Government Printing Office, 1899, pp. 381, 382.

† Reprinted from the 'Quarterly Statement' of the Palestine Exploration Fund, January 1890, pp. 41-43. [We have thought it advisable to reprint this article, as it seems to have quite escaped the notice of ornithologists, and is of considerable interest.—Edd.]